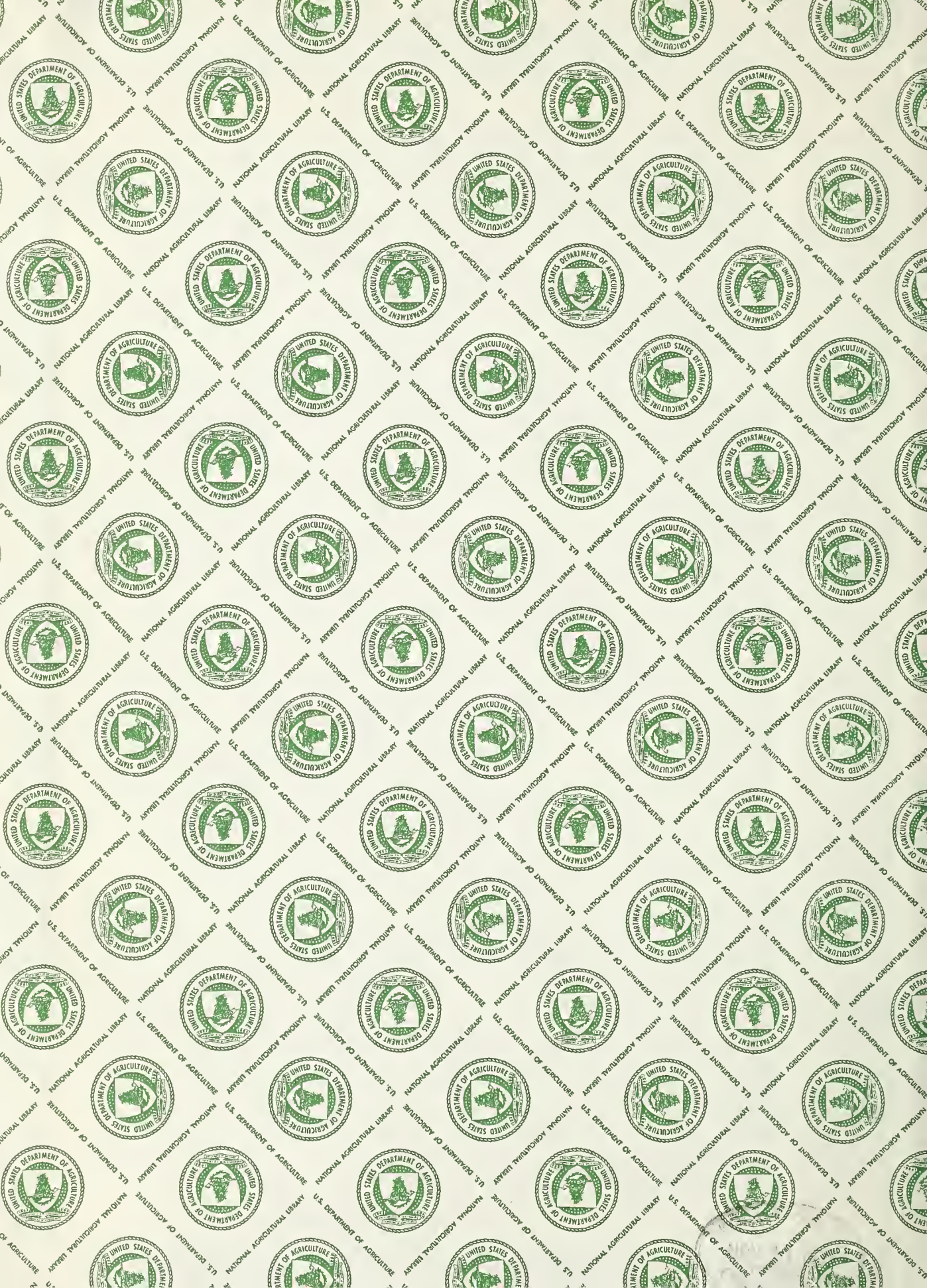
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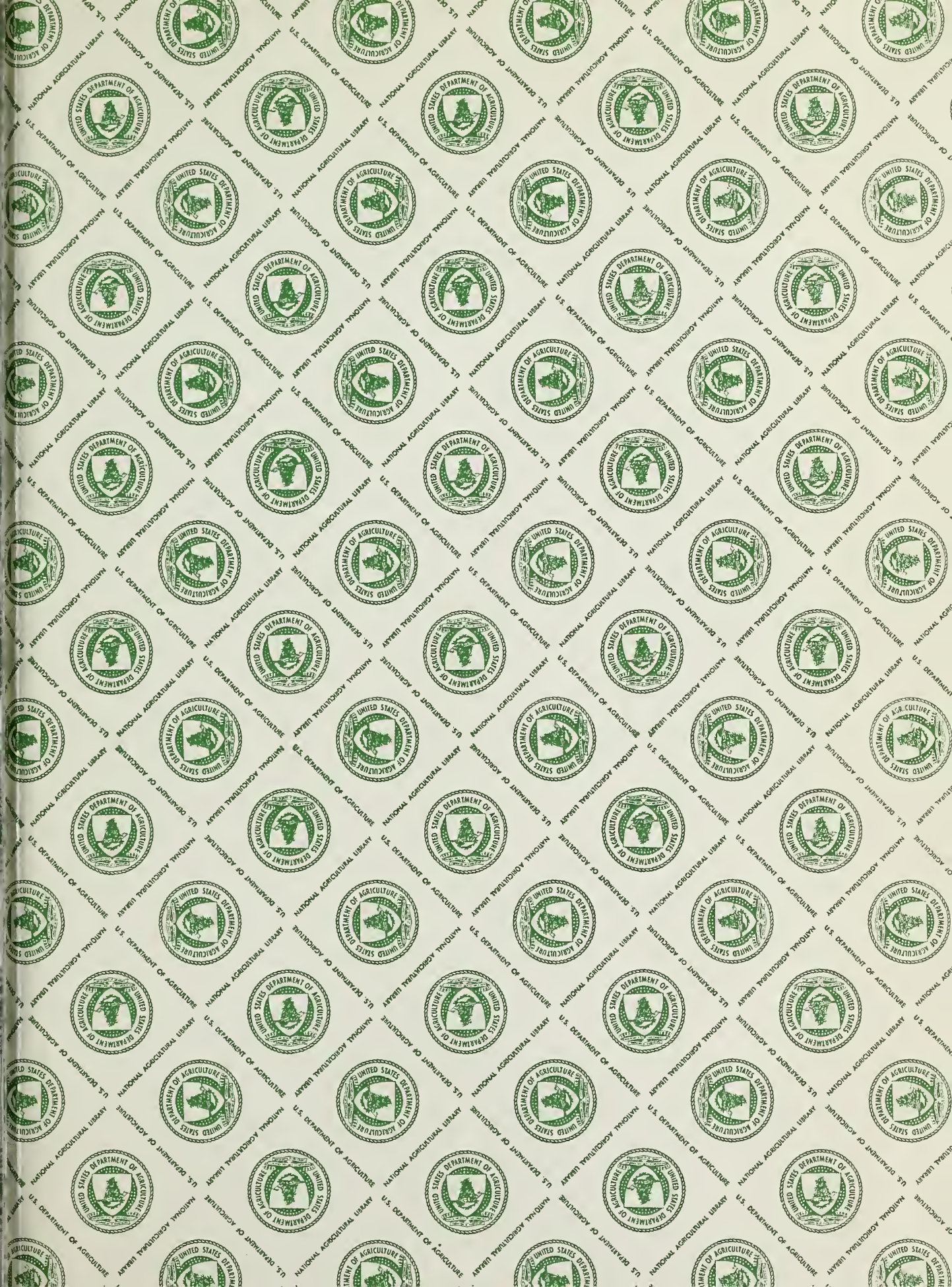
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Snow Surveyors Climbing to a Snow Course

FEDERAL-STATE COOPERATIVE SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for

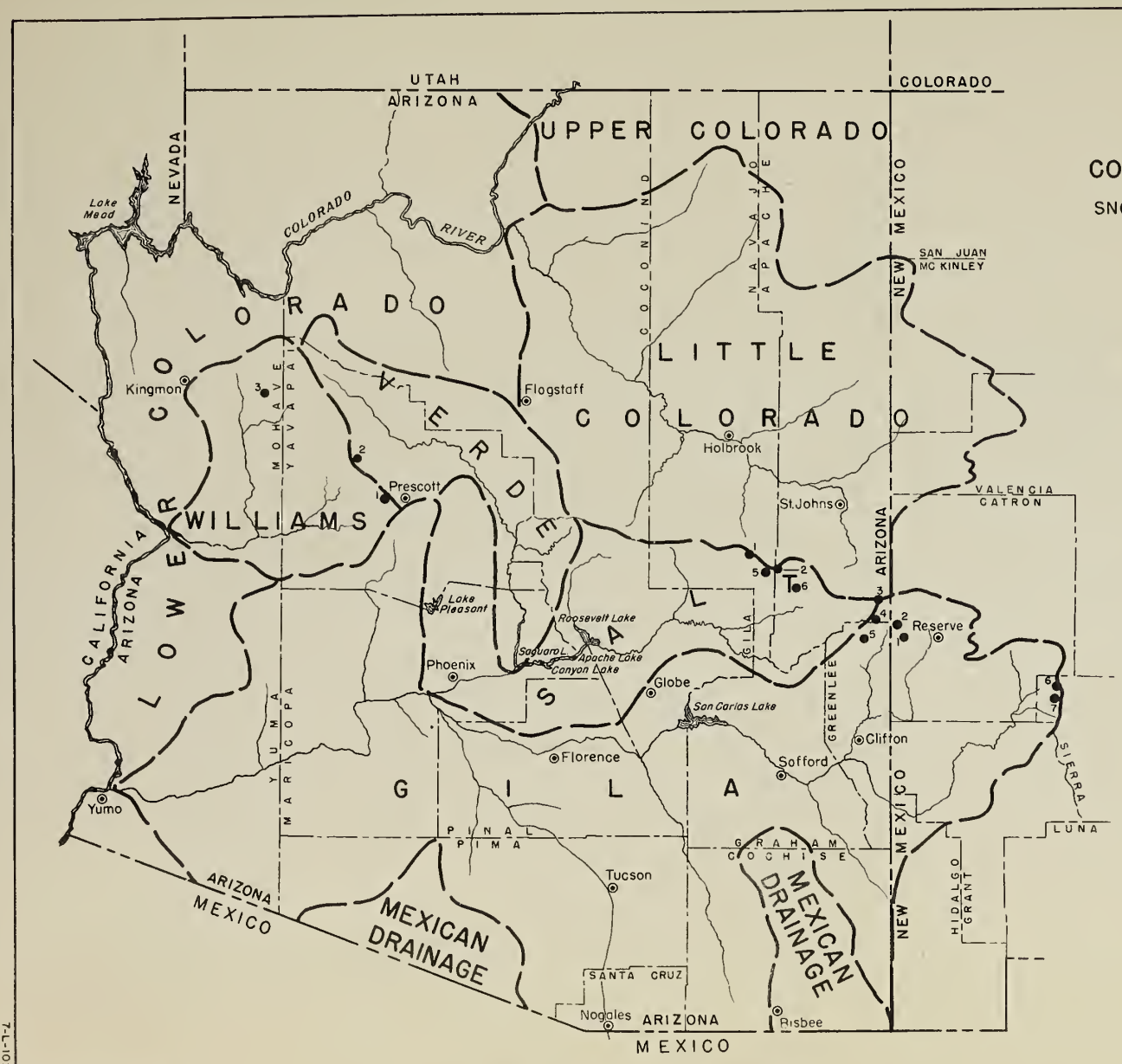
ARIZONA

JANUARY 15, 1946

By

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture

Data included in this report were obtained by the agency named above in cooperation with the Federal, State, and local organizations listed on the last page of this report.



ARIZONA
COOPERATIVE SNOW SURVEYS

SNOW COURSES AND DRAINAGE BASINS

October 16,1945

32 0 32 64
SCALE IN MILES

INDEX TO SNOW COURSES

Number	Name	Elevation
	Little Colorado River	
1.	Forest Dale	6,000
2.	McNary	7,200
3.	Nutrioso	8,500
	Williams River	
1.	Iron Springs	6,200
2.	Camp Wood	5,700
3.	Willow Ranch	5,000
	Gila River	
1.	(N.M.)Frisco Divide	8,000
2.	(N.M.)State Line	8,000
3.	Nutrioso	8,500
4.	Coronado Trail	8,000
5.	Beaver Head	8,000
6.	(N.M.)Taylor Creek	7,850
7.	(N.M.)Inman	7,900
	Verde River	
1.	Iron Springs	6,200
2.	Camp Wood	5,700
	Salt River	
1.	Forest Dale	6,000
2.	McNary	7,200
3.	Nutrioso	8,500
4.	Coronado Trail	8,000
5.	Milk Ranch	7,000
6.	McKay	8,250

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WATER SUPPLY OUTLOOK

Arizona
January 15, 1946

* January 15, 1946 snow surveys indicate that the water content of snow at the higher elevations of Little Colorado and Salt Rivers is above normal while the Gila is low. In practically all major watersheds cumulative runoff since October 1945 is below normal with reservoir storage less than normal.

Snow Cover As of January 15, 1946 snow cover on the higher elevations of the Little Colorado and Salt Rivers is above the 1939-46 average also greater than last year. Several nice storms have come to Fort Apache Indian Reservation since the second week of December. The early snows stayed on the ground for several days, then were melted by gentle rain which improved soil moisture condition. The last general snow covered practically all the Reservation with heavy snow in the high country. The fall and early winter drought experienced by Apache National Forest was improved in the western portion by January snows. Good moisture conditions exist in the soil beneath the dry snow cover. The eastern portion of the Forest is still short of moisture with the soil moisture deficiency becoming progressively worse. On the Upper Gila watershed, water content of snow is about 81 percent of the 1939-46 average and 84 percent of last year at this date. Sub-normal precipitation and soil moisture deficiency increases from west to east. Late December and early January snow in the Williams-Verde River divide, melted and increased soil moisture. A light snow followed prior to January 15 snow surveys.

Runoff Stream discharge over the state was generally below normal during the period October 1 through December 31. Little Colorado River was extremely low in comparison to the cumulative normal as was Williams River. Runoff of the Gila, Verde, and Salt Rivers varied from slightly below normal to about 80 percent of normal.

Reservoir Storage The present water storage in most of the important reservoirs in Arizona is below the January 15, 1945 level. As of this date Lake Mead is 98 percent of storage on the same date last year and 93 percent of the 1939-45 average. Salt River Reservoirs are 86 percent of last year and 110 percent of 1931-45 average, with San Carlos Reservoir storage 20 and 9 percent for the same dates. Bartlett Reservoir is 95 percent of 1945 and 13 percent of 1939-45 average. Lake Pleasant is 155 percent of last year but only 17 percent of 1931-45 average. The new reservoir created by Horseshoe Dam above Bartlett on Verde River is beginning to store water which probably accounts for some of the low storage at Bartlett Reservoir.

Although soil moisture conditions in the irrigated valleys is above normal, above normal precipitation during the coming weeks on the watersheds is needed to bring storage levels up to required amounts. This is especially true on the Gila watershed.

SNOW SURVEYS JANUARY 15, 1946

BASIN AND SNOW COURSE		LOCATION				SNOW COVER MEASUREMENTS								
						January 15, 1946		Actual	Past January 15		Water Depth		1946 as
Name	Number	Sec.	Twp.	Rge.	Elev.	Snow Depth (Inches)	Water Depth (Inches)	Date of Survey	1945 (Inches)	1944 (Inches)	Average (Inches)	Years of Record	Percent of Average
LITTLE COLORADO RIVER													
Forest Dale	1	2	9N	21E	6000	9.1	1.5	1/17	0.5	0.7	0.9	7	167
McNary	2	14	8N	23E	7200	9.7	1.6	1/17	2.2	1.5	2.4	7	67
Nutrioso	3	23	6N	30E	8500	9.5	1.8	1/15	1.6	0.3	1.8	7	100
WILLIAMS RIVER													
Iron Springs	1	22	14N	3W	6200	5.4	1.3	1/15	New	Snow	Course		
Camp Wood	2	3	16N	6W	5700	0.7	0.2	1/15	"	"	"		
Willow Ranch	3	16	21N	11W	5000	0	0	1/17	"	"	"		
GILA RIVER													
Frisco Divide	1	31	6S	20W	8000	7.9	1.3	1/17	2.6	0.9	1.9	7	68
State Line	2	6	6S	21W	8000	8.9	1.6	1/17	3.0	1.1	2.5	7	64
Nutrioso	3	23	6N	30E	8500	9.5	1.8	1/17	1.6	0.3	1.8	7	100
Coronado Trail	4	26	5N	30E	8000	9.6	1.7	1/17	2.3	1.2	2.9	7	59
Beaver Head	5	13	4N	30E	8000	12.8	3.4	1/15	2.6	0.5	3.0	7	113
Taylor Creek	6	20	10S	10W	8500	No Report				0.8	1.0	3	
Inman	7	6	11S	10W	7800				New	Snow	Course		

SNOW SURVEYS JANUARY 15, 1946

BASIN AND SNOW COURSE		LOCATION				SNOW COVER MEASUREMENTS								
						January 15,1946		Actual	Past January 15			Water Depth		1946 as
Name	Number	Sec.	Twp.	Rge.	Elev.	Snow Depth (Inches)	Water Depth (Inches)	Date of Survey	1945 (Inches)	1944 (Inches)	Average (Inches)	Years of Record		Percent of Average
VERDE RIVER														
Iron Springs	1	22	14N	3W	6200	5.4	1.3	1/15	New	Snow	Course			
Camp Wood	2	3	16N	6W	5700	0.7	0.2	1/15	"	"	"			
SALT RIVER														
Forest Dale	1	2	9N	21E	6000	9.1	1.5	1/17	0.5	0.7	0.9	7		167
McNary	2	14	8N	23E	7200	9.7	1.6	1/17	2.2	1.5	2.4	7		67
Nutrioso	3	23	6N	30E	8500	9.5	1.8	1/17	1.6	0.3	1.8	7		100
Coronado Trail	4	26	5N	30E	8000	9.6	1.7	1/17	2.3	1.2	2.9	7		59
Milk Ranch	5	28	8N	23E	7000	8.5	1.4	1/17	0.3	1.2	1.4	6		138
McKay	6	13	7N	24E	8250				New	Snow	Course			

STATUS OF RESERVOIR STORAGE AS OF JANUARY 15

In the following tabulation, water storage in important Arizona reservoirs as of about January 15, 1946 is compared with storage as of approximately the same date in 1945, 1944 and with the designated average.

Storage Reservoirs	Stream Basin	Capacity Acre-Feet	Acre - Feet in Storage about January 15				
			1946	1945	1944	Average	Years used for average
Lake Mead	Lower Colorado	31,142,000	22,624,000	23,115,000	24,437,000	24,385,000	1939 - 1945
Salt River Reservoirs	Salt	1,770,000	720,974	851,879	1,034,929	657,366	1931 - 1945
San Carlos	Gila	1,200,000	18,400	92,000	282,000	195,275	1931 - 1945
Lake Havaso	Lower Colorado	688,000	572,180	576,682	567,694	494,010	1939 - 1945
Bartlett	Verde	179,500	7,352	7,756	18,246	57,506	1941 - 1945
Lake Pleasant	Agua Fria	178,500	3,425	2,207	2,611	19,926	1931 - 1945
Horseshoe	Verde	60,000	9,596	New Reservoir			

The following organizations cooperate in the Arizona snow survey work:

STATE

Nevada Agricultural Experiment Station
Reno, Nevada

FEDERAL

Department of Agriculture
Forest Service
Apache Forest
Prescott Forest
Soil Conservation Service
Division of Irrigation

Department of Commerce
Weather Bureau
Arizona Section

Department of Interior
Bureau of Reclamation
Region III
Geological Survey
Arizona District
Indian Service
Fort Apache Reservation

Gila Water Commission
Safford, Arizona

IRRIGATION PROJECTS

Salt River Valley Water Users Association
Phoenix, Arizona

San Carlos Irrigation and Drainage District
Coolidge, Arizona

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.